

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Revision of Part 15 of the Commission's Rules to	)	ET Docket No. 13-49
Permit Unlicensed National Information	)	
Infrastructure (U-NII) Devices in the 5 GHz Band	)	

**REPLY COMMENTS OF WI-FI ALLIANCE**

Wi-Fi Alliance®<sup>1/</sup> submits these reply comments pursuant to the Commission's Public Notice in the above-referenced proceeding seeking to update and refresh the record regarding the potential for sharing between Unlicensed National Information Infrastructure ("U-NII") and Dedicated Short Range Communications ("DSRC") devices in the 5.850-5.925 GHz ("U-NII-4") band.<sup>2/</sup> There is broad agreement in the record that there is a need for additional spectrum capacity for unlicensed uses, and the U-NII-4 band in particular is well-suited for providing that additional capacity. Wi-Fi Alliance therefore urges the Commission to move quickly in concluding its tests and deciding how best to promote sharing in the band, so that the Wi-Fi® industry and Wi-Fi users can soon unlock the band's full potential.

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<sup>1/</sup> Wi-Fi®, the Wi-Fi logo, the Wi-Fi CERTIFIED logo, Wi-Fi Protected Access® (WPA), WiGig®, the Wi-Fi ZONE logo, the Wi-Fi Protected Setup logo, Wi-Fi Direct®, Wi-Fi Alliance®, WMM®, and Miracast® are registered trademarks of Wi-Fi Alliance. Wi-Fi CERTIFIED™, Wi-Fi Protected Setup™, Wi-Fi Multimedia™, WPA2™, Wi-Fi CERTIFIED Passpoint™, Passpoint™, Wi-Fi CERTIFIED Miracast™, Wi-Fi ZONE™, WiGig CERTIFIED™, Wi-Fi Aware™, Wi-Fi HaLow™, the Wi-Fi Alliance logo and the WiGig CERTIFIED logo are trademarks of Wi-Fi Alliance.

<sup>2/</sup> See *The Commission Seeks to Update and Refresh the Record in the "Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band" Proceeding*, Public Notice, ET Docket No. 13-49 (rel. June 1, 2016).

## I. COMMENTS

As Wi-Fi Alliance explained in its comments, use of Wi-Fi and other unlicensed technologies has expanded dramatically since the Commission initiated this proceeding.<sup>3/</sup> It is increasingly critical, as other commenters note, that the Commission continue to make spectrum available for unlicensed uses to meet this growing demand. For example, members of the Public Interest Spectrum Coalition (the “Public Interest Commenters”) stress that “[t]he widespread availability of Wi-Fi operating on *unlicensed* spectrum is the single most important factor in mitigating the ‘spectrum crunch.’”<sup>4/</sup> These groups point out that “Wi-Fi is increasingly the public’s primary gateway to Internet access”; Wi-Fi produces a “tremendous *multiplier effect* . . . on the use and ability of the Internet.”<sup>5/</sup> Likewise, the Computing Technology Industry Association notes the hard work of the FCC, NTIA, and other federal agencies in opening up additional spectrum recently, but notes that “there’s still more work to be done to meet the continually growing demand for spectrum.”<sup>6/</sup>

The U-NII-4 band is ideal to meet this demand. Wi-Fi Alliance noted the potential for the U-NII-4 band to help share the burden of increasingly crowded unlicensed spectrum and also offer additional technical benefits.<sup>7/</sup> Echoing those points, the Public Interest Commenters urge the Commission to permit unlicensed access to at least a portion of the band which, combined

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<sup>3/</sup> See Comments of Wi-Fi Alliance, ET Docket No. 13-49, at 2-3 (filed July 7, 2016) (“Wi-Fi Alliance Comments”).

<sup>4/</sup> Comments of Open Technology Institute at New America, Public Knowledge, Engine, Common Cause, and Next Century Cities, ET Docket No. 13-49, at 8 (filed July 7, 2016) (“Public Interest Comments”).

<sup>5/</sup> *Id.* at 9-10.

<sup>6/</sup> Comments of the Computing Technology Industry Association (CompTIA), ET Docket No. 13-49, at 1 (filed July 7, 2016).

<sup>7/</sup> See Wi-Fi Alliance Comments at 2-4.

with harmonized technical rules with the adjacent U-NII-3 band, will enable access to 80- and 160-megahertz channels, greatly increasing Wi-Fi capacity.<sup>8/</sup> Indeed, commenters widely recognize the possibility of sharing the U-NII-4 band to permit other applications beyond auto industry applications. Cisco Systems, Inc., for instance, explains that “the issue is no longer whether the band should be shared, but how.”<sup>9/</sup> Even automakers recognize that sharing between their DSRC technologies and unlicensed uses is possible in the band.<sup>10/</sup> Likewise, other commenters urging caution and emphasizing the need to put safety first acknowledge the potential for sharing in the band. For example, the Port Authority of New York and New Jersey notes that “DSRC . . . communication technologies may be able to co-exist with existing Wi-Fi technologies across the 5.9 GHz spectrum.”<sup>11/</sup>

While industry is prepared to invest in U-NII-4 band technology to meet the expanding needs for additional capacity and to deploy U-NII-4-capable devices, it is unable to do either in the face of regulatory uncertainty. The Commission should therefore proceed with its test plan as quickly as practicable to determine how best to make additional spectrum in the U-NII-4 band available for unlicensed operations. Wi-Fi Alliance remains confident that testing will demonstrate that non-DSRC use of the band is feasible without causing harmful interference to DSRC applications. Permitting unlicensed operations in the band will help maximize long-overdue use of the spectrum in the near term.

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<sup>8/</sup> Public Interest Comments at 4. *See also* Comments of Dynamic Spectrum Alliance, ET Docket No. 13-49, at 1 (filed July 7, 2016).

<sup>9/</sup> Further Comments of Cisco Systems, Inc., ET Docket No. 13-49, at 1-2 (filed July 7, 2016).

<sup>10/</sup> *See, e.g.,* Comments of the Alliance of Automobile Manufacturers, Association of Global Automakers, Intelligent Transportation Society of America, and DENSO International America, Inc., ET Docket No. 13-49, at iv (filed July 7, 2016) (asserting that “it has not been definitively shown that any of the proposed sharing methods . . . is technically capable of preventing interference to DSRC,” but noting that one of the sharing approaches “holds the most promise”).

<sup>11/</sup> Comments of the Port Authority of New York and New Jersey, ET Docket No. 13-49, at 2 (filed July 7, 2016).

Finally, the Commission should not permit any newly presented and unwarranted concerns from derailing its testing process and slowing the adoption of rules to permit unlicensed use of the U-NII-4 band. SES S.A. (“SES”) and Intelsat S.A. (“Intelsat”) argue that the Commission should take into account aggregate interference from unlicensed U-NII devices towards Fixed Satellite Service operations and request “clarification as to when and how FSS operations will be incorporated into the final test plan.”<sup>12/</sup> This proceeding has already been ongoing for years, and there has been no change in the allocation or satellite operations in the U-NII-4 band during that time. SES and Intelsat are not “refreshing” the record, but introducing additional concerns that should have been raised at an earlier point. Moreover, the Commission’s rules provide that satellite use of the band is limited to international inter-continental communications, with the expectation that there will be one earth station on each coast.<sup>13/</sup> The extremely limited potential use of the band for earth station operations should not impede use of the spectrum for unlicensed devices.

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<sup>12/</sup> Comments of SES S.A. and Intelsat S.A., ET Docket No. 13-49, at 2 (filed July 7, 2016).

<sup>13/</sup> See 47 C.F.R. § 2.108.

## II. CONCLUSION

Wi-Fi Alliance is encouraged by the recent comments acknowledging that sharing is possible between DSRC and unlicensed operations in the U-NII-4 band. As Wi-Fi Alliance has explained, and commenters have echoed, the U-NII-4 band is ideal for expanding use of Wi-Fi and other unlicensed technologies. The Commission should now proceed expeditiously with the testing necessary to determine the specifics of how the band will be shared.

Respectfully submitted,



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